

**Amendment and Response**

Applicant: Keith Hoene et al.

Serial No.: 09/887,816

Filed: June 25, 2001

Docket No.: 10007759-1 (H303.210.101)

Title: SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION

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**REMARKS**

The following remarks are made in response to the Office Action mailed September 14, 2004. Claims 1-27 were rejected. With this Response, claims 4-5, 12-13, and 23 have been canceled and claims 1-3, 6-11, 19-22, and 24-27 have been amended. Claims 1-3, 6-11, 14-22, and 24-27 remain pending in the application and are presented for reconsideration and allowance.

**Oath/Declaration**

Applicants have amended the Title to the Specification and Abstract to replace the former Title "SYSTEM AND METHOD FOR COMPUTER NETWORK VIRUS EXCLUSION" with the precise Title recited on the executed declaration, namely, "ENHANCED NETWORK VIRUS PROTECTION THROUGH SERVER-BASED CLIENT QUARANTINE". This change is believed to alleviate the objection to the declaration.

**Claim Rejections under 35 U.S.C. § 102**

In the Office Action, claims 1-3, 6, 11, 14, 15, 19-25, and 27 were rejected under 35 U.S.C. 102(e) as being anticipated by Chefalas et al. U.S. Pub. No. 2002/0116639 (herein Chefalas).

Applicant's amended independent claim specifies a method of network computing. Amended independent claim 1 substantially includes the limitations of dependent claims 4 and 5. Accordingly, Applicant's will treat claim 1 with the rejection applied to claims 4 and 5.

As admitted in the Office Action, Chefalas fails to disclose a method of network computing that includes detecting client computers that do not maintain an enabled virus protector and isolating a client computer that has a disabled virus protector, as claimed by Applicant in claim 1, and fails to disclose preventing connection for client computers not enabled for virus protection, as claimed by Applicant in claim 1.

Grosse fails to cure the deficiencies of Chefalas. Grosse fails to teach or suggest terminating or preventing a client-server connection for at least one client computer based on **directly verifying a disabled status or non-enabled status** of a virus protector of the client computer, as claimed by Applicant in claim 1. Instead, Grosse discloses a network that

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indirectly evaluates each client computer by virus-probe testing the client computers via a firewall. In addition, Grosse only generally indicates that a network security administrator can take appropriate action to correct those clients which are misconfigured (see Grosse at Column 3, lines 10-15 and 22-24), but does not disclose terminating or preventing a client-server connection based on directly verifying the disabled or non-enabled status of a virus protector of a client computer, as claimed by Applicant in claim 1.

For these reasons, Chefalas and Gross, alone or in combination, fail to teach or suggest amended independent claim 1, and therefore Applicant's amended independent claim 1 is patentable and allowable over Chefalas and Gross. In addition, dependent claims 2-3 are also believed to be allowable based on their dependency from claim 1, and because they are patentably distinct from independent claim 1.

For substantially the same reasons as presented for patentability of claim 1, Chefalas (and Grosse) fail to disclose Applicant's amended independent claim 25 which is directed to a computer readable medium having computer-executable instructions for performing a method of network computing -- the method including substantially the same limitations as claim 1. For these reasons, Chefalas (and Grosse) fail to teach or suggest amended independent claim 25, and therefore Applicant's amended independent claim 25 is patentable and allowable over Chefalas (and Grosse).

Regarding Applicant's independent claim 6, Chefalas fails to disclose a method of virus-controlled network access. In particular, in the passage cited in the Office Action (Paragraph 12 of Chefalas), Chefalas fails to disclose identifying, with a server, at least one client computer that fails to produce an approved virus scan report, and isolating the at least one client computer not having the approved virus scan report from authorized communication with the server. Instead, Chefalas discloses testing client computers via probe testing at a firewall rather than seeking information about virus scan reports. In other words, Chefalas simply tests the client computer with virus probes rather than verifying whether or not the client computer has an approved virus scan report, as claimed by Applicant in claim 6. Moreover, Chefalas merely discloses that an administrator will take appropriate action to correct clients, but does not disclose isolating the client computer from authorized communication with the network, as claimed by Applicant in claim 6.

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For these reasons, Chefalas fails to teach or suggest amended independent claim 6, and therefore Applicant's amended independent claim 6 is patentable and allowable over Chefalas.

Regarding Applicant's independent claim 11, Chefalas fails to disclose a method of preventing network virus migration within a network. The method includes, among other things, monitoring a virus susceptibility of each client computer of the network based on at least one of directly verifying whether a virus protector of the client computer is enabled and whether the client computer reports a valid virus scan report.

Amended independent claim 11 substantially includes the limitations of dependent claims 12 and 13. Accordingly, Applicant's will treat claim 11 with the rejection applied to claim 12 (Chefalas and Gross) and claim 13 (Chefalas and Stiles).

As admitted in the Office Action, Chefalas fails to disclose detecting a client computer that does not maintain an enabled virus protector and isolating a client computer having a disabled virus protector (in reference to claim 12). As also admitted in the Office Action, Chefalas fails to disclose selectively permitting the client computer authorized access to the server through the client-server connection when the virus scan report detects no viruses and denying the client computer access to the server when a virus is detected or no valid virus report is provided by the client computer (in reference to claim 13).

Grosse fails to cure the deficiencies of Chefalas. Grosse fails to teach or suggest terminating or preventing a client-server connection for an at least one client computer based on **directly verifying** a disabled status or non-enabled status of a virus protector of the client computer, as claimed by Applicant in claim 11. Instead, Grosse discloses a network that indirectly evaluates each client computer by virus-probe testing the client computers via a firewall. Moreover, Grosse does not disclose tracking virus-susceptible computers and preventing a client-server connection based on directly verifying the disabled or non-enabled status of a virus protector of a client computer, as claimed by Applicant in claim 11.

Stiles fails to cure the deficiencies of Chefalas. In particular, Stiles fails to disclose a method of preventing network virus migration including, among other things, determining whether a client computer provides (to a server) a valid virus report or whether a client computer maintains an enabled virus protector, as claimed by Applicant in claim 11. Rather, the cited passage in Stiles (Column 2, line 56- Column 3, line 40) discloses that a computer

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network checks for viruses to validate a service provider seeking access to a computer system. Accordingly, in Stiles, the computer network does not check whether or not the service provider has enabled virus protector, and the service provider does not provide it own virus scan report.

For these reasons, Chefalas and Gross, or Chefalas and Stiles, fail to teach or suggest amended independent claim 11, and therefore Applicant's amended independent claim 11 is patentable and allowable over Chefalas and Gross, and Chefalas and Stiles, respectively. In addition, dependent claims 14-15 are also believed to be allowable based on their dependency from claim 11, and because they are patentably distinct from independent claim 11.

For substantially the same reasons as presented for patentability of claim 11, Chefalas (as well as Grosse and/or Stiles) fail to disclose Applicant's amended independent claim 24 which is directed to a computer readable medium having computer-executable instructions for performing a method of preventing network virus migration within a network -- the method including substantially the same limitations as claim 11. For these reasons, Chefalas (as well as Grosse and/or Stile) fail to teach or suggest amended independent claim 24, and therefore Applicant's amended independent claim 24 is patentable and allowable over Chefalas (as well as Grosse and/or Stiles).

Regarding Applicant's amended independent claim 21, Chefalas fails to disclose independent claim 21 that specifies a computing network virus monitor. In particular, for substantially the same reasons presented in support of patentability of independent claim 1, both the first cited passage in Chefalas (§ 12) and the second cited passage in Chefalas (§ 44, Figs. 4A-4B) fail to disclose a quarantine monitor for preventing network communications to a server of a network originating from each client computer that is virus-infected or that is virus-susceptible by having at least one of a disabled virus protector and a virus definition set that is that is out-of-date, as claimed by Applicant in claim 21. Moreover, the second cited passage of Chefalas merely discloses various details about a business event 400 without teaching or suggesting enablement or disablement of a virus protector of at least one client computer, as claimed by Applicant. Finally, as admitted in the Office Action (regarding claim 10 as explained in a separate rejection), Chefalas fails to disclose terminating the

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client-server connection if the virus definitions of the virus protector of the at least one client computer have not been updated within a specified date criteria of the server.

For these reasons, Chefalas fails to teach or suggest amended independent claim 21, and therefore Applicant's amended independent claim 21 is patentable and allowable over Chefalas.

For substantially the same reasons as presented for patentability of claim 21, Chefalas, fails to disclose Applicant's amended independent claim 27 which is directed to a computer readable medium having computer-executable instructions for performing a method of quarantining client computers -- the method including substantially the same limitations as represented by a computing network virus monitor in claim 21. For these reasons, Chefalas fails to teach or suggest amended independent claim 27, and therefore Applicant's amended independent claim 27 is patentable and allowable over Chefalas.

Independent claim 23 has been canceled.

In the Office Action, independent claims 19, 20, 22, 24, 25, and 27 were rejected based on reasoning applied in rejection of claim 3, which further necessarily incorporates the reasoning in the rejection of claim 1 from which claim 3 depends.

Independent claim 19 specifies a server including, among other things, a quarantine monitor configured for preventing a client-server connection for at least one virus-susceptible client computer by directly verifying that the at least one virus-susceptible client computer has at least one of a disabled virus protector and a lack of a virus protector, and configured for tracking an identity of the at least one virus-susceptible client computer.

For substantially the same reasons presented in support of patentability of independent claim 1, both the first cited passage in Chefalas (§ 12) and the second cited passage in Chefalas (§ 44, Figs. 4A-4B) fail to disclose a quarantine monitor of a server that directly verifies the status of disabled virus protector of a client computer or a lack of a virus protector for a client computer, as claimed by Applicant in claim 19. Moreover, the second cited passage of Chefalas merely discloses various details about a business event 400 without teaching or suggesting enablement or disablement of a virus protector of at least one client computer, as claimed by Applicant.

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For these reasons, Chefalas fails to teach or suggest amended independent claim 19, and therefore Applicant's amended independent claim 19 is patentable and allowable over Chefalas.

Independent claim 20 specifies a client computer including, among other things, a virus protector configured for producing a report to a server to confirm by a virus scan report that the client computer is virus-free and for notifying the server that the virus protector is enabled, and thereby eligible to connect to the server with authorized access privileges.

For substantially the same reasons presented in support of patentability of independent claim 1, both the first cited passage in Chefalas (§ 12) and the second cited passage in Chefalas (§ 44, Figs. 4A-4B) fail to disclose a virus protector of a client computer configured to produce a virus scan report to a server as part of proving eligibility to connect to a server, as claimed by Applicant in claim 20. Moreover, the second cited passage in Chefalas merely discloses various details about a business event 400 without teaching or suggesting notifying a server about enablement of the virus protector of the client computer in order to be eligible for connection to the server, as claimed by Applicant in claim 20.

For these reasons, Chefalas fails to teach or suggest amended independent claim 20, and therefore Applicant's amended independent claim 20 is patentable and allowable over Chefalas.

Independent claim 22 specifies a virus quarantine monitor of a server that comprises, among other things, a blocking mechanism configured for signaling the server to prevent client-server connections with at least one client computer that is identified as being virus-infected or being virus-susceptible by having at least one of a disabled virus protector and an out-of-date virus definition file.

For substantially the same reasons presented in support of patentability of independent claim 1, both the first cited passage in Chefalas (§ 12) and the second cited passage in Chefalas (§ 44, Figs. 4A-4B) fail to disclose a quarantine monitor of a server that signals a server to prevent client-server connections with at least one client computer that is identified as being virus-susceptible by having a disabled virus protector of a client computer or a virus definition file that is out-of-date, as claimed by Applicant in claim 22. Moreover, the second

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cited passage of Chefalas merely discloses various details about a business event 400 without teaching or suggesting enablement or disablement of a virus protector of at least one client computer, as claimed by Applicant. Finally, as admitted in the Office Action (regarding claim 10 as explained in a separate rejection), Chefalas fails to disclose terminating the client-server connection if the virus definitions of the virus protector of the at least one client computer have not been updated within a specified date criteria of the server.

For these reasons, Chefalas fails to teach or suggest amended independent claim 22, and therefore Applicant's amended independent claim 22 is patentable and allowable over Chefalas.

As previously explained in relation to claims 11, 1 and 21, independent claims 24, 25, and 27 are believed to be patentable and allowable over Chefalas for the reasons presented above for the patentability of claims 11, 1, and 21, respectively.

Accordingly, Applicant respectfully requests that the above 35 U.S.C. § 102(e) rejection to claims 1-3, 6, 11, 14, 15, 19-25, and 27 based on Chefalas be reconsidered and withdrawn, and that these claims be allowed, except for claim 23 which has been canceled.

**Claim Rejections under 35 U.S.C. § 103**

In the Office Action, claims 4 and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chefalas in view of Grosse U.S. Pat. No. 5,205,551 (herein Grosse).

Dependent claims 4 and 5 have been canceled.

In the Office Action, claims 7 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chefalas in view of Stiles U.S. Pat. No. 6,330,608 (herein Stiles).

Dependent claim 13 has been canceled.

Independent claim 7 specifies a method of maintaining a virus-controlled network computing system. As admitted in the Office Action, Chefalas fails to disclose selectively permitting the client computer authorized access to the server through the client-server connection when the virus scan report detects no viruses and denying the client computer access to the server when a virus is detected or no valid virus report is provided by the client computer.

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Stiles fails to cure the deficiencies of Chefalas. In particular, Stiles also fails to disclose at least one client computer scanning itself for viruses, as claimed by Applicant. Moreover, Stiles fails to disclose a computer network determining whether a client computer provides a valid virus report that detects no viruses or whether a client computer lacks a valid virus report, as claimed by Applicant in claim 7. Rather, Stiles discloses that a computer network checks for viruses to validate a service provider seeking access to a computer system. Accordingly, in Stiles, the computer network performs the virus scan and the service provider does not provide its own virus scan report.

For these reasons, Chefalas and Stiles, fail to teach or suggest amended independent claim 7, and therefore Applicant's amended independent claim 7 is patentable and allowable over Chefalas and Stiles.

In the Office Action, claim 8 was rejected under 35 U.S.C. 103(a) as being unpatentable over Chefalas in view of Stiles and further in view of Grosse.

First, dependent claim 8 is believed to be allowable based on its dependency from independent claim 7, which is believed to be allowable for the reasons previously presented.

Second, for substantially the same reasons presented for the patentability of independent claim 1, claim 8 is patentable over Chefalas and Grosse (as well as Stiles) as they fail to disclose the limitations of claim 8 of establishing a client-server connection based on the at least one client computer maintaining a virus protector of the at least one client computer in an enabled mode.

For these reasons, Chefalas, Stiles and Grosse, fail to teach or suggest dependent claim 8, and therefore Applicant's amended independent claim 8 is patentable and allowable over Chefalas, Stiles and Grosse.

In the Office Action, claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Chefalas in view of Stiles and further in view of Arnold et al. U.S. Pat. No. 5,440,723 (herein Arnold).

First, dependent claim 9 is believed to be allowable based on its dependency from independent claim 7 and dependent claim 8, which is believed to be allowable for the reasons previously presented above.

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Second, as admitted in the Office Action, Chefalas fails to disclose querying the client computer periodically to determine if the virus protector of the client computer remains enabled, as claimed by Applicant. Arnold fails to cure the deficiencies of Chefalas. Instead, Arnold discloses a method that detects virus-like or anomalous behavior which is not equivalent to Applicant's method which focuses on a network tracking a user and whether or not they keep their virus protector enabled.

For these reasons, Chefalas, Stiles and Arnold, fail to teach or suggest dependent claim 9, and therefore Applicant's amended dependent claim 9 is patentable and allowable over Chefalas, Stiles and Arnold.

In the Office Action, claims 10, 16-18, and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chefalas in view of Stiles and further in view of Hodges et al. U.S. Patent No. 6,269,456 (herein Hodges).

First, dependent claim 10 is believed to be allowable based on its dependency from independent claim 7, and dependent claims 8 and 9 which are believed to be allowable for the reasons previously presented.

Second, as admitted in the Office Action, Chefalas fails to disclose terminating the client-server connection if the virus definitions of the virus protector of the at least one client computer have not been updated within a specified date criteria of the server. Hodges fails to cure the deficiencies of Chefalas. Instead, the cited passage in Hodges (Column 4, line 53 to Column 5, line 48) teaches away from Applicant's claim 10 because the server noted in Hodges is a central antivirus server of a virus service provider (rather than a server of a local network to which the client computer belongs) which seeks to maintain a server-client connection when the virus definitions are not updated in order to be able to provide the up-to-date virus definitions. This action is the opposite of Applicant's method of terminating a client-server connection when virus definitions are not up-to-date.

For these reasons, Chefalas, Stiles and Hodges, fail to teach or suggest dependent claim 10, and therefore Applicant's amended dependent claim 10 is patentable and allowable over Chefalas, Stiles and Hodges.

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Independent claim 16 was rejected based upon the same reasoning as applied to the rejection of claim 10. Accordingly, for substantially the same reasons presented for the patentability of claim 10 (including the reasons for patentability of base claim 7), Chefalas, Stiles and Hodges fail to disclose Applicant's independent claim 16 directed to a virus exclusion network system which comprises, among other things, a network server including a virus monitor configured for preventing an authorized network connection between the client computer and the server when the client computer fails to produce at least one of a report of an up-to-date virus scan of the client computer and a confirmation of enablement of the virus protector of the client computer.

For these reasons, Chefalas, Stiles and Hodges, fail to teach or suggest independent claim 16, and therefore Applicant's amended dependent claim 16 is patentable and allowable over Chefalas, Stiles and Hodges. In addition, dependent claims 17-18 are also believed to be allowable based on their dependency from claim 16, and because they are patentably distinct from independent claim 16.

For substantially the same reasons as presented for patentability of claim 16, Chefalas, Stiles, and Hodges fail to disclose Applicant's amended independent claim 26 which is directed to a computer readable medium having computer-executable instructions for performing a method of monitoring network connections -- the method including substantially the same limitations as represented by a virus network exclusion system in claim 16. For these reasons, Chefalas, Stiles, and Hodges fail to teach or suggest amended independent claim 26, and therefore Applicant's amended independent claim 26 is patentable and allowable over Chefalas, Stiles and Hodges.

Accordingly, Applicant respectfully requests that the above 35 U.S.C. § 103 rejection to claims 7-10, 13, 16-18, and 26 based on Chefalas, Stiles, Grosse, Arnold, and/or Hodges, as expressed in each of the separate rejections under Section 103, be reconsidered and withdrawn, and that these claims be allowed.

**CONCLUSION**

In view of the above, Applicant respectfully submits that pending claims 1-3, 6-11, 14-22, and 24-27 are in form for allowance and are not taught or suggested by the cited

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references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-3, 6-11, 14-22, and 24-27 is respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 08-2025.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either Jeff D. Limon at Telephone No. (541) 715-5979, Facsimile No. (541) 715-8581 or Paul S. Grunzweig at Telephone No. (612) 767-2504, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

**Hewlett-Packard Company**  
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Respectfully submitted,

Keith Hoene et al.,

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 14th day of December, 2004.

By Paul S. Grunzweig  
Name: Paul S. Grunzweig